

OSCILLATOR

OTVARC

Oregon Tualatin Valley Amateur Radio Club (Est. 1978)

March 1999

THE PRESIDENT'S MESSAGE

By Betty, N7REX

February's speaker stood us up. ODOT may have had a lot going on, but they could have called and rescheduled. Lots of people wanted to hear what they had to say. I hope it won't take as long to get them in as it did for light-rail.

Thanks to Jim Schaeffer, KB7ADH; Alvin Carlson, KB7VHI; and JD Fort, K7JDF, for their semi impromptu program. I have to say semi because we planned to do a little 'message handling' training at each of the next few meetings. That is why Alvin was prepared with the message forms. Janet Bell, WB7JFC, had contacted him when she knew she and Hanford VanNess, KE7BB, would be vacationing in Mexico during February's general membership meeting. Thanks! Also, thank you to Harold, WA0BRU, and Julie Landers for the Valentine treats.

Willy Ranes, N7DZR, brought in his 72-hour emergency kit. I hope some of you took the time to look it over. For March's meeting let's have people with call suffixes J-M bring in their kits to share. Perhaps people would show more interest if the kits were taken out of the boxes and put on display.

At the February club meeting, I offered to resign as club president. Due to family illness, I will not be able to devote as much time or energy to the club business as I have in the past. Chuck will no longer be able to offer all of the behind the scenes support that I have become accustomed to (and believe me, if I seemed well organized, it is because of all of Chuck's help). 1999 will be both physically and emotionally exhausting for us. I will resign if that is what the membership wants. If not, then I will need a great deal of help this year. Please help if asked. Please volunteer if you see a need - don't wait to be asked. But most of all, please forgive me if I forget to do something, or if I seem impatient and short-tempered.

If you haven't volunteered for Sea*Pac yet, be sure to sign up at the next club meeting. The

mailers went out just before Rickreall, so get your registrations in to Will Scheffield as soon as possible. Remember this is an OTVARC event and it provides the bulk of the club's operating budget. Support Sea*Pac - support the club.

With spring comes the beginning of the public service schedule. If you know of an upcoming event, send the information to Dale LeBarron, W7FBP. Be sure to include the dates and contact person. We will try to keep a current list of events in the Oscillator.

Note: the OTVARC camp-out in March is the second weekend. 2nd Note: if you haven't renewed your membership, please take care of that right away. See you in March. 73, Betty <>

It's Renewal Time Again!

If you haven't remembered to renew yet, the Secretary or Treasurer will be glad to accept your dues for the 1999 year.

NEXT MEETING

WEDNESDAY, MARCH 10TH

Our February program speaker, Dave Sadler, apologized for not being able to make it to the February meeting as planned. He has rescheduled his slide-presentation for the March meeting.

Dave will show slides and describe the many electronic systems which ODOT has installed in the Portland area.

See page 2, column 1 for more info.



W7OTV 146.960 (RPTR)

WWW.EASYSTREET.COM/OTVARC

MARCH SPEAKER BACKGROUND

From JD, K7JDF

Dave Sadler, our March program speaker furnished the following background information

I am an Oregon native and have worked at many different types of jobs over the years. In 1977 I was working in my final year of a four year apprenticeship as a commercial sign electrician and during the installation of a new sign on top of a K Mart store in Springfield, Oregon I fell.

My career had to be changed because of the injuries I sustained. I was sent to Portland Community College (PCC) and received an Associates degree in Civil Engineering Technology.

The Oregon Department of Transportation recruited me at PCC and after graduation I started with them in June of 1980. My first position was as a Civil Engineering Technician in a construction engineer's office.

I attended college classes at night, completing course work and earning my Bachelors degree in Civil Engineering from the Oregon Institute of Technology.

I was promoted to a professional engineer's position in 1983 and worked as a construction project inspector for several years. In 1990 I took a position at the Region Headquarters as a Traffic Engineer. I served in that capacity for four years.

I returned to a construction office in 1994 as a Project Coordinator on the Sunset Highway projects and worked in that capacity until August of 1997 when I took a promotion to fill the position as Traffic Management Operations Center/COMET Supervisor.

HAMS FILL TEXAS COMMUNICATION GAP

From Amateur Radio Newsline
By Garland, K5VY

Flood causes cell phone and commercial VHF radio systems to go down.

Red Cross and local emergency officials in East Texas benefited from ham radio in late January during flooding along the Sabine River. The flood gates at the Toledo Bend Reservoir had to be opened under emergency conditions January 29 after heavy rains the previous week north of the lake.

The next day, the area downstream of the Toledo Bend Dam—slightly east of the town of Burkeville, Texas, was declared a disaster location. The Red Cross headquarters in Orange, Texas, was notified that many families living below the dam were forced to evacuate due to rising water in the Sabine River.

When the Red Cross mobile units arrived on scene January 31, however, they found that their cell phones and VHF radios would not function, causing a major disruption in the provision of food, blankets, and other disaster aid.

Red Cross Manager Tom Martin contacted ARES DEC J. R. Aaron, K5SUB, for help in setting up emergency communication from the affected flood area to the Orange Red Cross headquarters. Aaron then contacted Gene Vanscoy, KA5VMF, Dick Porter, KK5GV, Bill Lexa, WA5LFS, and Paul Clark, W5UHG in the Orange area to assist in relaying information via HF from the affected

area to the Red Cross HQ in Orange.

In turn, K5SUB contacted Newton County EC Garland Meredith, K5VY, to activate the Newton County mobile EOC, KD5GBG. The mobile unit arrived at the Red Cross location below the Toledo Bend Dam power generating facility around noon. W5UHG, KA5VMF and KK5GV established HF and VHF links. WA5LFS, manned the HF equipment at the Orange Red Cross headquarters. In all, hams handled 28 formal and 41 informal messages.

Nearly 150 people were evacuated. Authorities reported no serious injuries, no fatalities and no one reported missing in the Burkeville area. The relief effort wrapped up February 1.

<>

FOR SALE OR WANTED

By Editor, W7OTV

Now that the Swap meets and hamfests are popping up like the spring daisies, why not advertise some of that unused but serviceable ham gear you have laying around gathering dust.



Just contact the editor at (503) 638-7768, e-mail at daleleba@web-ster.com, FAX at (503) 638-8713, or send your info to the OTVARC PO Box shown on the page 9 of the newsletter.

The editor will call you if there are any questions. Remember to get it to the editor by the 20th of the month so that it will appear in the next month's newsletter.

The editor also needs help in gathering articles and news to put into the newsletter. If you come upon any information or local news that you think the other members would like to see or hear about, send it to the editor. He rarely turns down anything that is in good taste. As a reward, you will get your name in print. The editor will take care of any spelling, or formatting problems and will make you look like a professional writer.

If you have knowledge of any club member or family member having a serious health problem, please call Mary Berg, N7TRW, our Health & Welfare Contact, at 640-5456 and let her know.

<>

ACCORDING TO A RECENT GOVERNMENT PUBLICATION.....
A billion seconds ago Harry Truman was president.
A billion minutes ago was just after the time of Christ.
A billion hours ago man had not yet walked on the earth.
A billion dollars ago was yesterday at the U. S. Treasury.

BORSCH ELECTRONICS

Communications Servicing

9935 S.W. Johnson St.
Tigard, OR 97223

Joe Borsch W7PNS

(503) 684-5201

CW NOW OFFICIALLY DEAD IN MARITIME RADIO

From Amateur Radio Newsline.

By Robert Sudock, WB6FDF

Morse code officially went the way of its old spark gap transmitters on Monday, February 1st for most ships in distress at sea.

It was just about 100 years ago that a radio message first initiated a rescue at sea. According to the International Maritime Organization, the first emergency call by wireless came from a lightship when its crew saw the steamship Elbe run aground off the coast of Dover, England.

It was a bit later that the "SOS" emergency call came into common usage. The International Maritime Organization says that the SOS signal was adopted at a conference convened three months after the Titanic sank in 1912. The particular three letters, S O S, were chosen for one reason and one reason only—the letters were easily recognized. Three dots, three dashes, and three dots. The IMO dispels as myth the common belief that SOS stood for save our souls.

But CW is now a "mode of the past" on the high seas. A new satellite system has displaced Morse. Use of the system is mandatory for all international freighters weighing more than 300 gross tons, all passenger vessels and for self-propelled oil drilling units. Only coastal freighters, most fishing boats and pleasure craft are exempt.

The new orbital-based maritime distress system works by beaming distress calls directly to an INMARSAT satellite. The satellite then relays the alert to one of four rescue-coordinating centers.

These facilities are located in Australia, England, Germany and the Western United States. The rescue craft or other vessels closest to the stricken ship are notified within minutes, speeding life saving assistance on its way.

The International Maritime Organization had set February 1st as its target date to replace CW with the Global Maritime Distress and Safety System. To a great extent that deadline has been met. Or, as one British news writer put it, "The IMO has finally buried the Morse code at sea."

Backers of the system say that it is so accurate that it can pinpoint the exact location of a ship signaling for help to within a hundred yards. The new system also means that radio amateurs are now one of the very few services left with a requirement that its users—at least those operating on the high frequency bands—know and understand the Morse code. <>

DAYTON T-HUNT

From Amateur Radio Newsline

Local ham will be forum speaker at
Dayton Hamvention

If you are into T-Hunting, then make plans to take part in one of the biggest events of the year – it will be in Ohio this spring.

The Dayton Foxhunt Forum to be held at this years Dayton Hamvention has been announced for Saturday, May the 15th. The forum, to be held at 10 AM, will feature Dale Hunt (a Mac-Minnville resident), Joe Mel, and Joe Legrow.

There will also be a foxhunt held at 3 PM Saturday afternoon. This will be held on foot. A small supply of 2 meter and 440 yagi antennas and attenuators will be available for loan on a first come, first serve basis.

Again, that is the Dayton Foxhunt Forum to be held on Saturday of this years Dayton Hamvention. Be sure to mark that date on your t-hunt calender. <>

NEWSPAPER ADVERTISEMENT

From Amateur Radio Newsline

The VK6 Radio Oldtimers Club has forwarded the following which is an advertisement from a local newspaper which appeared four days in a row – the last three hopelessly trying to correct the first days mistake.

MONDAY: For sale: R.D. Jones has one FT 101 Radio for sale. Phone after 7:00 PM and ask for Mrs Kelly who lives with him. Cheap.

TUESDAY: We regret having erred in R.D. Jones ad yesterday. It should have read, One FT 101 Radio cheap. Phone and ask for Mrs Kelly, who lives with him after 7:00 PM.

WEDNESDAY: R.D. Jones has informed us that he has received several annoying phone calls because of the error we made in yesterdays classified ad. The ad stands correct as follows: For sale - R.D.Jones has one FT 101 Radio for sale cheap. Phone after 7:00 PM and ask for Mrs Kelly who loves with him ...

THURSDAY: I, R.D. Jones, have no FT 101 Radio for sale. I smashed it. Don't call again as I have had the phone Disconnected. I have not been carrying on with Mrs. Kelly. Until yesterday she was my house keeper, but she quit!

All this goes to prove that a Swapmeet might be the safest way to sell your unwanted gear. <>

NEW DXCC ENTITY ADDED

From Greg, W7AGQ

The International Telecommunication Union, in its Operational Bulletin No. 685 of February 1, 1999, has allocated the call sign prefix E4 for use by Palestine. This is in accordance with the Resolution PLEN/3 of the Plenipotentiary Conference of the ITU held in Minneapolis, Minnesota in 1998.

Under the current DXCC List Criteria, Section 1, this call sign allocation meets the requirement of paragraph b.

Palestine will be added to the DXCC List effective October 1, 1999. Contacts made with E4 stations after February 1, 1999, will count for this new entity.

Under the DXCC rules, contacts with the deleted entity of Palestine made prior to June 30, 1968 do not count for this entity. There is no commonality of territory or administration. <>

LOCAL HAM CONGRESSMAN

From Amateur Radio Newsline

Amateur Radio has a new political leader in congress. Greg Walden, WB7OCE was elected to the U.S. House of Representative from the 2nd District of Oregon. <>

PSK31 DIGITAL SYSTEM GETS RAVES

From THE ARRL LETTER

Getting tired of the "same ol' same ol'" on HF? From the father of AMTOR, Peter Martinez, G3PLX, comes PSK31, a "live QSO" keyboard-to-keyboard mode that occupies a sliver of bandwidth and offers terrific performance even under weak-signal conditions.

PSK31 isn't new; it's been around for a few years, but no one really took much notice until Martinez developed free software that works with a PC sound card. Suddenly, PSK31 has become the latest HF fad. Unlike TOR modes, PSK31 does not use a synchronized linking – or handshaking – protocol to exchange error-checked data packets.

Operationally, it's much like traditional 45-baud RTTY. PSK31 has shown itself to be a real trouper in weak-signal situations. Some hams experimenting with PSK31 claim that it outperforms all other amateur modes for weak-signal work – including CW.

Indeed, PSK31 signals are easy to overlook on the bands. Most PSK31 activity is concentrated on 14.070.15 and at 3.580.15 MHz. You'll also find it on 40 meters at 7.035.15 MHz. On 15 meters, look for activity around 21.070 MHz.

To run PSK31, you need a PC that runs Windows that's equipped with a sound card. PSK31 software is available via the Web. Your HF SSB transceiver should be very stable and tune in 1-Hz increments. The connections between the radio and the sound card are very straightforward.

Several versions of PSK31 software are available as zipped files. The latest PSK31 software includes a couple of tuning aids that make finding and tuning signals much simpler. The "official" PSK31 Web site is <http://aintel.bi.edu.es/psk31.html>, operated by Eduardo Jacob, EA2BAJ. The site also contains lots of information and links to other PSK31 and DSP-related sites, plus .wav files of PSK31 signals, so you'll know what to listen for.

W1AW Station Manager Joe Carcia, J1Q, has experimented with the new operating mode, PSK31, at the Maxim Memorial Station. While it took a bit of effort to get the equipment to function properly, he says initial results were quite good. Plans are in the works to add this mode to the complement of modes available for W1AW visiting operators.

Some have questioned whether the FCC permits hams to use PSK31. The answer is a definite "yes," although some confusion is understandable given the wording of Section 97.309(a) of the rules.

Responding to an ARRL inquiry, the FCC amended the section in 1995 (Order DA 95-2106) "to clarify that amateur stations may use any digital code that has its technical characteristics publicly documented."

PSK31 is publicly documented and widely available, but the ARRL in late January took the additional step of specifically documenting the technical characteristics of both PACTOR II and PSK31 in a letter to the FCC. <>

It's not what you say, but how you say it!

When Kentucky Fried Chicken translated its slogan "finger-lickin' good" into Chinese, it came out as "eat your fingers off."

SPACE STATION HAM RADIO

From Amateur Radio Newsline

Manned Ham Radio in Space

The people planning the future of ham radio on board the International Space Station have made some big news in Houston, Texas.

Attending the January 22nd to the 27th sessions at the Johnson Space Center were representatives of several nations involved in the development of the ISS ham radio station.

Their primary objectives were to finalize the design development of the "Initial Station" amateur radio hardware for ISS. Also, to develop a more effective understanding and advocacy of the ARISS program within NASA and Russia's Energia.

ARISS stands for Amateur Radio on the International Space Station, and for the ham in the street, it is the only future that manned ham radio has in space.

As we said, much was accomplished at the Houston conference. You can read about it in the text of the conference press release, which is posted at our website. Please go to: www.arnewline.org and have a look at what the future is all about.

<>

FCC ISSUES 5MHZ EXPERIMENTAL LICENSE TO ARRL

From THE ARRL LETTER

The FCC has issued an Experimental Radio Service license to the ARRL to permit two-way tests in the vicinity of 5 MHz, the most likely site of the next amateur HF band. The license, bearing the call sign WA2XSY, was issued January 8. A group of 15 current amateurs in various parts of the US and the Caribbean will conduct experimental, two-way RTTY and SSB transmissions within the band 5.100 to 5.450 MHz. To avoid interfering with existing services, the participants will confine their operations to the least-populated 50-kHz segment.

"The idea is to show that an amateur allocation there will improve our emergency communication capabilities by filling the gap between the 3.5 and 7.0 MHz bands," said ARRL Executive Vice President David Sumner, K1ZZ.

Sumner pointed out that several of the participants are phone net members in the Caribbean and Gulf area who frequently handle hurricane-related traffic and now must alternate between 75 meters and 40 meters. Other participants are members of a nationwide digital data-forwarding network.

The Experimental license is good for two years. Two studies by the National Telecommunications and Information Administration (NTIA) include an allocation at 5 MHz among the future spectrum needs for the Amateur Service. The subject is not likely to show up on the agenda of a World Radiocommunication Conference for several years, however.

Participants in the WA2XSY experiment may run up to 200W effective radiated power. Similar multiband trap dipoles capable of operation on 80 and 40 meters as well as at 5 MHz will be employed at each station location. Operation by participants will consist of short transmissions to determine propagation characteristics.

Participating stations are located in New Hampshire, Tennessee, Ohio, Florida, Mississippi, Wisconsin, Indiana, California, Utah, New York, Texas, the US Virgin Islands, and Maryland. <>

FCC SAYS DELAWARE HAM MUST RETEST OR LOSE TICKET

From The ARRL Letter

The FCC has notified a Delaware ham that she must take her Amateur Radio examinations again or lose her license. The FCC's Riley Hollingsworth, K4ZDH, says "questions were raised" about how Sheila Bowden, N3QQS, of Millsboro, upgraded to Extra, and said the FCC is requesting that Bowden start from scratch and retake "all the elements." Bowden was notified February 16 in a letter from Hollingsworth.

The FCC has the authority under Part 97 to re-administer exam elements previously administered by VEs. The FCC may administer the exam itself or designate a VEC or VE to administer the retesting session – typically employing a VEC that's different from the initial testing session.

The FCC told Bowden that she must retake the Amateur Extra Class examination series at an ARRL/VEC session before March 19 or lose her license. "You will be granted an Amateur Radio license consistent with any elements that you pass upon re-examination," Hollingsworth's letter said.

Hollingsworth said the FCC plans to call in "25 to 50 more" amateur licensees for retesting in the near future. Those individuals have not yet been notified, however. In all of those cases, Hollingsworth said, the FCC has reason to suspect the integrity of the examination process.

"The ham community needs to have a sense of confidence in the examination system," Hollingsworth said, adding that enforcement must not focus solely on operating violations. "This is a critical link in the chain."

Last month, the FCC dismissed the Extra class license formerly held by Bowden's husband, Wayne, after the Commission discovered "irregularities in the administration of the examination by the Volunteer Examiners." Wayne Bowden, formerly AA3RT, took the complete Amateur Radio examination series at an October 4 W5YI-VEC session. He had not held an amateur license before then.

The FCC is continuing its probe into alleged testing irregularities at Pennsylvania W5YI-VEC sessions October 4 and 6, including allegations that examinees might have been coached or given test answers.

<>

KING HUSSEIN, JY1, SK

From The ARRL Letter

Radio amateurs around the world joined in mourning the death of Jordan's King Hussein, JY1. Hussein, 63, died Sunday morning, 7 February. The Middle East's longest-reigning ruler, he'd been Jordan's king for 47 years, taking the throne when he was just a teenager. His son, Abdullah, 37, succeeds him.

Hussein had earned a reputation as a catalyst for peace and as a conciliator in the Middle East. President Clinton is among the heads of state from around the globe gathered in Jordan today for King Hussein's funeral.

Hussein was a life member of the ARRL. ARRL Executive Vice President David Sumner, K1ZZ, called him "an enthusiastic radio amateur whose support was invaluable to us in obtaining new amateur bands at the 1979 World Administrative Radio Conference." Sumner recalled that in May 1979, International Amateur

Radio Union President Noel Eaton, VE3CJ, was invited to Amman to meet with King Hussein.

"Jordan's support of the Amateur Service was much in evidence at the conference that fall, and was a crucial element in our success," Sumner said. The WARC-79 resulted in Amateur Radio's gaining the 30, 17, and 12-meter bands. That same year, JY1 was featured in the film, "The World of Amateur Radio." Hussein regarded his 1983 contact with Owen Garriott, W5LFL, on board the Space Shuttle Columbia, as a high point in his Amateur Radio activity.

King Hussein also participated in the historic 1995 joint Israel-Jordan JY74X operation on Mt Nebo, where hams from both countries participated in a Field Day-like operation. The King put in appearances both on the air and in person, much to the delight of the participants and those waiting to work him and JY74X.

Hussein's friend Bruce "Blackie" Blackburn, W4TA/JY9BB, of St Petersburg, Florida, called him "one of the world's most respected amateurs" and recounted many stories about King Hussein as a person and an avid Amateur Radio operator. "He was a wonderful guy, interested in everything and everyone," he said.

Blackburn said King Hussein "promoted Amateur Radio to the hilt in Jordan" and saw to it that Amateur Radio classes were instituted in elementary schools. King Hussein also dropped in on meetings of the Royal Jordan Radio Amateur Society in Amman. King Hussein was also involved with the early satellite experiments.

Hussein had been active in recent months from the US while seeking cancer treatment at Minnesota's Mayo Clinic. A QSO with JY1 was considered by many hams to be both an honor and a privilege. His elegant QSL card was prized. AMSAT Area Coordinator Bruce Paige, KK5DO, in Houston, worked JY1 while the king was in the US last summer. "That was a very exciting moment for me," he said.

Pat Kilroy, WD8LAQ, says he enjoyed a three-minute contact on 20 meters with King Hussein in the fall of 1995. "JY1 was traveling aeronautical mobile, enroute to the United Nations. He insisted on me addressing him simply as 'Hussein'," he said. "In one of the oldest traditions in Amateur Radio, Hussein upheld that this kinship transcends not only age and nationality, but also between citizen and head of state."

All members of the Jordanian royal family automatically have Amateur Radio privileges in Jordan. Although the new king does not appear to have a call sign, King Hussein's widow – the American-born Queen Noor – is JY1NH. King Hussein's brother, the former Crown Prince Hassan, is JY2HT, while his cousin, Prince Raad, JY2RZ, is chairman of the Royal Jordan Radio Amateur Society.

<>

THE DREADED Y2K BUG STRIKES

And finally, word that the dreaded Y2K bug has already reared its ugly two digit head. According to ZL2RIC, a chap in a non Y2K compliant European nation recently received a letter from the government's education department. It ordered him to enroll at a local school as he was now five years old, having been born in 1994.

You guessed it. It turns out that the "young" man receiving the note is actually 105 years old having been born in 1894. But the non Y2K compliant government computer will not recognize the fact. It insists that he is five years old once again and it wants him back in the first grade!

UPCOMING '99 PUBLIC SERVICE EVENTS

By Betty, N7REX, Jim, KB7ADH, and Randy, KZ7T

DATE	EVENT	CONTACT	CALL	PHONE(503)
April 11	MS Walk	Randy Stimson	KZ7T	297-1175
May 2	Lake Run	Alan Chinnock	KB7POR	636-2237
June 12	Rose Festival Parade	Barry Carlson	WB7WTD	245-8279
June 19	Reach the Beach (bike event)	Bob Boswell	W7LOU	823-1141/623-2513
June 27	River City Distance Classic (running event)			
July 24	Sumit To Surf (bike event)	Betty Mickley	N7REX	642-1284
July 31/Aug 1	MS 1 50 (bike event)	Randy Stimson	KZ7T	297-1175
Aug 8.	Bridge Pedal (bike & run events)	Jim Schaeffer	KB7ADH	245-2518
Sept 12/19	Cycle Oregon (bike event)	Randy Stimson	KZ7T	297-1175
Sept 19	Race for The Cure (running event)	Jim Schaeffer	KB7ADH	245-2518
Sept 25	Walktoberfest	Betty Mickley	N7REX	642-1284
Oct 3	Portland Marathon (running & walking events)	Hugh Ellsworth	KB7LJV	653-1993
Nov 26	Santa Claus Parade	Jim Schaeffer	KB7ADH	245-2518

Please call the listed coordinator if you can help out on these events. These are all worthy causes and need the clubs help.

FCC'S HOLLINGSWORTH IS NET GUEST

From The ARRL Letter

The FCC's point man for Amateur Radio enforcement, Riley Hollingsworth, K4ZDH, put in a guest appearance January 29 during a session of the South Carolina Single Sideband Net on 75 meters. "They contacted me and asked me if I'd take a few minutes to talk with them," said Hollingsworth, who's a South Carolina native.

Hollingsworth said he told those gathered for the net "where we've been, where we're going, and what we're trying to accomplish" in terms of ham radio enforcement. He said he expects to return to the airwaves from time to time and welcomes invitations from other organized nets. (His e-mail address is rholling@fcc.gov.) Hollingsworth's unannounced and unexpected appearance on 3894.5 MHz January 13 to discuss compliance and enforcement created a stir within the Amateur Radio community. <>

ALPHA/POWER BUYS RFCONCEPTS

from The Amateur Newslite

Alpha/Power, a leading manufacturer of HF linear amplifiers, has purchased the RFconcepts product line of VHF and UHF amplifiers. All service and repairs now are being handled by Alpha/Power, which is headquartered in Longmont, Colorado. The sale price was not disclosed.

The deal included the RFconcepts name and product line as well as inventory, current and non-current designs and manuals, finished goods, tooling, and vendor and dealer lists.

Kantronics President Phil Anderson, W0XI, had announced in

September that he was looking for a buyer for the company's RFconcepts product line, saying it "does not fit within our strategic plan for the future." Kantronics had bought the RFconcepts division in 1989 and moved it from California.

For the time being at least, Alpha/Power will continue to market RFconcepts products through the same dealer network. Alpha/Power expects to be manufacturing new products under the RFconcepts name by early 1999.

A spokesman said Alpha/Power would be working with Kantronics to ensure a smooth transition. "We feel like it's a really good fit for our product line," he said of the RFconcepts purchase.

For more information, contact Alpha/Power, 14440 Mead Ct, Unit B, Longmont, CO 80504; tel 970-535-4173; <http://www.Alpha-Power-inc.com>. <>

ADI SPONSORS HAM RADIO TESTING SITE

From The ARRL Letter

ADI Premier Communications, which makes ADI and Pryme products, has debuted its HamTest.com Web site to help ham radio neophytes study for their Amateur Radio examinations. The site, <http://www.hamtest.com>, provides simulated tests, access to all question pools, and a link to the ARRL/VEC home page and the database of upcoming test sessions.

Help is available by posting a request in the interactive user forum. Advice from experienced hams is available in the "Elmers Chat Room." Use of advanced features requires a Java-enhanced browser. The site materials are available free to all. For more information, send e-mail to elmer@hamtest.com. The ADI/Pryme site is at <http://www.adi-radio.com>. <>

THE TELEPHONE

By Allan, KB7POR

With the coming of the new century I thought it might be fun to look back on the technology of the last turn of the century. The following comes from "The Century Book of Facts" edited by Henry W. Ruoff, M.A., D.C.L. and published by The King-Richardson Company in 1900 and 1902.

The Telephone

This wonderful advance in electrical science was made practical in 1875, and is the invention of Prof. A.G. Bell, Chicago. There were simultaneous inventions by Gray, Edison, and others. In reality, the telephone is simple in construction, but it is difficult to explain in words. The human voice, recognizable in articulate words, is apparently carried for miles on a wire.

Yet it is well to understand in the beginning that such is not the case. The listener does not hear any person talk. All that goes over the wire is thousands of varying impulses of electricity. The entire secret lies in electrical induction.

It has been shown that electricity produces magnetism. Following, it has been shown that this process can be reversed, and that magnetism produces electricity. This last fact was made use of in the original Bell telephone.

The Blake transmitter is now used, slightly modifying the action, but not altering the principle of the instrument, and an endeavor to explain this will be made. It has been shown that an approach to, or a receding from, a wire carrying a current, produces an induced current. Then it was shown that if one of the pieces were a magnet, and there was a rapid approach and receding by a piece of soft iron, an induced current would also be produced.

Now there is in the transmitting instrument of a telephone a bar magnet, and on one end of this is wound several layers of fine insulated wire. The ends of this wire run off and become a part of the circuit between two telephones. No current passes over this circuit ordinarily, but one can be induced if a piece of iron is made to move quickly, to tremble, near the bar. This is accomplished by placing crosswise to the end of the bar magnet, the thin black disc of sheet-iron against which, so to speak, one talks when using the telephone.

The voice impinging upon this, causes it to tremble; to approach and recede from the magnet, not vaguely and without rule, but precisely in proportion to the tone of the voice. Every time one of these very small movements of the disc occurs a small impulse is sent from the magnet over the circuit whose coil encloses it.

At the other end of the circuit there is a precisely similar arrangement of bar magnet and coil and disc, enclosed in that trumpet-shaped receiving instrument which is held to the ear. The magnetism in this last magnet is increased with each impulse in precise proportion to the power of the impulse, and this disc of the receiving instrument is drawn toward its magnet and released again in unison with the movement of the disc in the transmitter, which movements, as stated, are great or small, or slow or fast, in accordance with the tones of the voice of the speaker.

It follows that the mechanical rattle of a disc of sheet-iron held close to the ear produces sounds that vary in pitch and intensity precisely as those do which are produced by impinging of the human voice upon the other disc, a mile or more away. The movement of

the transmitting disc controls those of the receiving disc through the medium of varying impulses of electricity sent to the magnet of the latter by the magnet of the former. The movements of the former are controlled by the human voice. It follows that the movements of the latter are also controlled by the same voice. It is the reversal of a process. If a disc is moved by the voice in a certain way, the moving of a disc in the same way by some other means will imitate the voice. So far as the volume is concerned the imitation is microscopic. But it can be heard, and answers all purposes.

It is doubtful if, among all the productions of human genius, there will ever be anything nearer the miraculous than the almost universally used telephone. <>

ULS READY TO GO

From Amateur Radio Newsline

The Final Order to implement the FCC's new Universal Licensing Service has been published in the Federal Register. Actual publication was last December 14th and the new rules became effective in mid-February.

Among other things, the ULS has replaced the vintage Form 610 with a new Form 605. Also, electronic filing of routine Amateur Radio applications is encouraged, but not required.

Lastly, foreign operators from countries with reciprocal operating agreements with the United States will no longer have to apply for a permit to operate. This is similar to the agreement already in place between the United States and Canada. <>

SEMICONDUCTORS ON A SPHERE

By Jim Miller, K8EIO

The December issue of *ECN* magazine noted some work being done by BALL Semiconductor, Inc. in Allen, Texas. It seems that BALL, for the first time in the history of the semiconductor industry, has built a working transistor on the surface of a one millimeter sphere.

Typically, semiconductors are fabricated on wafers of silicon, using conventional masking, exposure and etching techniques. The BALL project is now approaching the full prototype stage of development. When fully developed, this spherical semiconductor could reduce the cost of semiconductor manufacturing by up to 90%.

This cost reduction would be gained by eliminating the need for expensive production clean rooms and reducing the assembly time to 5 days. They hope to introduce a commercially viable product by the year 2000.

Their approach to manufacture begins with the sorting of very small polycrystal granules that have been (continued on page 8)

DEETH & ASSOCIATES

- * Telecommunications
- * Most Key Systems
- * TIE/Norstar/ & Others
- * Security Systems

(503) 324-3737
Pager (503) 818-0581
Fax: (503) 324-4833

Ray Deeth
180 So. Main (#C)
Banks, Oregon 97106

(Continued from page 7 – SEMICONDUCTORS ON A SPHERE)

processed into single-crystal silicon balls. The plan is to have the entire production process occur continuously in hermetically sealed pipes.

These pipes would include all phases of the production process: crystal formation and grinding, polishing, cleaning, drying, diffusion, film deposition, wet and dry etching, coating and exposing. They predict that this type of process will eliminate the need for clean room production facilities, thereby reducing the startup cost for silicon manufacturing from >\$1 billion to <\$100 million.

The ECN article goes into some detail regarding the actual process, but the key to the process is a technique called spherical lithography. Spherical lithography is used to expose the pattern from the semiconductor negative onto the surface of the sphere. This, of course, requires that the mask pattern be segmented and arranged to fit the curvature of the sphere.

Suffice to say, there will be considerable interest in the BALL approach as it moves closer to the final version. If it continues to show promise, we may all benefit from lower-cost semiconductors.

<>

SPACE STATION HAM RADIO

From Amateur Radio Newsline

Manned Ham Radio in Space

The people planning the future of ham radio on board the International Space Station have made some big news in Houston, Texas.

Attending the January 22nd to the 27th sessions at the Johnson Space Center were representatives of several nations involved in the development of the ISS ham radio station.

Their primary objectives were to finalize the design development of the "Initial Station" amateur radio hardware for ISS. Also, to develop a more effective understanding and advocacy of the ARISS program within NASA and Russia's Energia.

ARISS stands for Amateur Radio on the International Space Station, and for the ham in the street, it is the only future that manned ham radio has in space.

As we said, much was accomplished at the Houston conference. You can read about it in the text of the conference press release, which is posted at our website. Please go to: www.arnewsline.org and have a look at what the future is all about. <>

CHECK OUT THE "NEW" QEX

From The ARRL Letter

Can't get enough technical articles and challenging projects? Check out the new QEX! If you would like more technical articles and challenging projects, look for them in QEX. This bi-monthly publication (64 pages) offers you more than four times the technical content of a single QST.

Ham radio technical experimentation is alive in QEX. In the March/April issue you'll find: vertical antennas — modeling and building a quarter-wave on 160 meters; Remote base operation; homebrewing a dream station; better filters for QRP rigs; killer front end; propagation from the edge; 6-meter power; power for MOSFETs, and much more. Visit <http://www.arrl.org/qex/> to see.

VE TESTING UPDATE

By Carl, WS7L

A test session was held Saturday, 13 Feb. Administering VEs were Bob, K7QXG, Tom, AB7QS, and me, WS7L. Kathy KC7USE assisted by keeping track of all the paperwork, and also worked with me to design a better system for organizing the work in process during the session.

This was our largest session so far, with a total of 16 applicants. About 10 of these were students from the OTVARC video course that just completed. We issued 6 Technician licenses, two Tech Plus, and one Extra. Several other applicants earned element credit for one of the written exams. All who did not earn a license expressed commitment to continue studying and take the tests again.

The next session will be on Saturday, 3 April, with others scheduled for Saturdays 12 June, 7 August, 2 October, and 4 December. All are at 1:00pm in the Tualatin Valley Fire & Rescue Building. Contact Carl WS7L at 629-5796 for more info.

In addition, the OTVARC VE Program is sponsoring the test session at SeaPac on Saturday, 5 June. VEs interested in serving at this session are encouraged to contact me. <>

OTVARC FOR LUNCH BUNCH

By Harold, WBOBRU

IT'S NEW! SWEET TOMATOES The Salad Buffet Restaurant

This month we have a new restaurant — it is located at 1225 NW Waterhouse Ave. — that is just off of 158th and the Cornell exit off Hwy 26. It's between the Texaco station and the Fairfield Inn.

They feature a salad bar where you can have a classic Caesar, Won Ton Chicken, Mandarin Spinach, Roma Tomato, Mozzarella & Basil, Shrimp & Crab Louise, or just try a little bit of everything.

After your salad, head back for the fruit, soup, bread, and pasta dishes. There are selections like Chicken Noodle, Vegetable, Clam or Corn Chowder, Chili, Minestrone, and many other selections which change from day to day.

Next to the soup are the breads and muffins in a variety of flavors, including a scrumptious chocolate brownie. There are help-yourself selections of Focaccias and pizza, and we should not forget a selection of pasta and sauces.

Then, if you still have room, there is the soft serve ice cream. Dish it up with your favorite toppings, or in a mini cone to top off your adventure in salad bar dining.

The prices are right and it's all you can eat — so come on out to Sweet Tomatoes on Saturday, March 27th at 1:30PM.

Enjoy lunch with your OTVARC friends and a guest. Guest? Yes, this is a good time to bring your ham friends to get acquainted with club members. WA0BRU will be talking to you on 146.96Mhz or alternate 146.90Mhz. <>

For You Computer users

If you at first you don't succeed, blame your computer!!

OTVARC Club Contacts

OTVARC Executive Board

President	Betty Mickley	N7REX	642-1284
Vice President	J.D. Fort	K7JDF	259-0269
Secretary	Mike McDonald	KC7YSW	692-5893
Treasurer	Hanford Van Ness	KE7BB	246-7975
Trustee	Jack Smithson	KA7HOJ	646-1873
Trustee	Will Sheffield	N7THL	642-7314
Trustee	Janet Bell	WB7FJC	648-4147
Trustee	Al Berg	W7SIC	640-5456
Trustee	Maureen O'Rourke	KA7LAP	591-9641

Other Club Contacts

ARRL Coordinator	Bob Orr	WF7Q	472-2716
Bunny Hunting	OPEN		
Contesting	OPEN		
DX News	OPEN		
Equipment Loan	Stan Griffiths	W7NI	649-0837
Equipment Valuation	Randy Stimson	KZ7T	297-1175
Equipment Trustee	Al Berg	W7SIC	640-5456
Emergency Services	J.D. Fort	K7JDF	259-0269
Field Day Coordinator	Harold Landers	WA0BRU	620-5041
	Jack Smithson	KA7HOJ	646-1873
Health & Welfare	Mary Berg	N7TRW	640-5456
Historian	Al Berg	W7SIC	640-5456
Internet Home Page	Mike Boyd	N7DKQ	640-6041
Member Badges	Carl Clawson	WS7L	629-5796
Newsletter Editor	Dale LeBarron	W7FBP	638-7768
Newsletter Layout	Dale LeBarron	W7FBP	638-7768
Newsletter Distribution	Al Berg	W7SIC	640-5456
Nominating Committee	OPEN		
Packet - Club BBS	Rick Braun	KB7OGD	645-1490
Project Night	Alan Chinnock	KB7POR	636-2237
	Chuck Mickley	KI7CL	652-1284
Public Relations	J.D. Fort	K7JDF	259-0269
Public Service	Randy Stimson	KZ7T	297-1175
Repeater	Wes Allen	K7WWG	649-3295
RFI & TVI	Dale Mosby	K7FW	640-0217
Satellites	OPEN		
Scholarship	Carl Clawson	WS7L	629-5796
Sea-Pac	Al Berg	W7SIC	640-5456
"	Brad Beach	N7NVC	657-1781
"	Jim Schaeffer	KB7ADH	245-2518
"	Randy Stimson	KZ7T	297-1175
"	Will Sheffield	N7THL	642-7314
Station Trustee	Chuck Mickley	KI7CL	642-3713
Social	Harold Landers	WA0BRU	620-5041
Technical Specialist	Stan Griffiths	W7NI	649-0837
Tower Ordinances	Greg Milnes	W7AGQ	648-6990
Trailer	Dee Lynch	KA7NPN	646-4580
Training(code)	Burt Rooke(PCC)	KI7JX	241-2891
Training(Novice/Tech)	Jim Mockley	AB7XD	629-9354
Training(upgrade)	OPEN		
VE Test Coordinator	Carl Clawson	WS7L	629-5796
VHF/UHF	Arnold Jensen	N7YAG	543-3713

OTVARC Club Information

Purpose: The Oregon Tualatin Valley Amateur Radio Club, a Not-for-profit corporation, wants to be instrumental in helping the prospective as well as established Amateur to become a proficient communicator in the Amateur Radio Service.

Additionally, the intent is to promote the advancement of Amateur Radio Service, through the following five objectives:

1. Education & Training of new and licensed Amateurs.
2. Public Service during public events & community activities.
3. Emergency communications during emergencies & disasters.
4. Hobby enhancement through meetings, nets & contests.
5. Social contact with other amateurs & interested persons.

Special Service Club: OTVARC is an ARRL Special Service Club. The ARRL grants us this distinction due to our participation in emergency preparedness exercises, public service events and other service-oriented programs. In addition, continuing educational and training programs are conducted for FCC licenses. OTVARC benefits from you joining the ARRL through OTVARC. To join or renew your membership in the ARRL, contact the treasurer at any regular meeting.

Newsletter: The *OTVARC Oscillator* is the club newsletter. It is published monthly and is usually mailed on the first of the month. The opinions, views, and recommendations of its contributors are not necessarily those of the club, its officers, advertisers or the editorial staff.

Correspondence: All correspondence may be sent to OTVARC, PO Box 5132, Aloha, OR 97006-0132.

Advertising: Classified ads are free to all paid up members. Display ads are available to approved commercial interests. To place an ad, mail your camera ready copy to the address above and indicate the size desired. All display ads run for six months at a time, from January through June and July through December. All ads must be paid for in advance. Rates are as follows:

Full page	8" X 10"	\$200 for six months
Half page	8" X 5"	\$120 for six months
Qtr page	4" X 5"	\$72 for six months
Bus. Card	2" X 3"	\$36 for six months

Meetings: We have two meetings per month. The board meeting is on the fourth Wednesday of each month. All club business is conducted at this meeting. All members are welcome to attend. Contact the President for location and time. The general meeting is on the second Wednesday of each month at the Beaverton Elks Lodge. 3500 SW 104th Ave. (1 block north of Canyon Road). Meetings start at 7PM. If you would like to come early, you can get a nice meal from the Elks for less than \$6.00.

Membership: OTVARC is open to anyone who is interested in amateur radio. You do not need to be a licensed radio amateur to join. Dues are as follows: Full member, \$10/yr; Associate member (non-licensed), \$10/yr; Family members of full member, \$5/yr; Life memberships available - see the Treasurer. Only full members and life members may vote on club business and serve as club officers. All memberships expire on the last day of the calendar year. If you would like to join during the year, see the club treasurer for prorated dues.

How to join: Simply mail the Membership application and/or renewal form along with your dues to the address above.

Internet Home Page: WWW.EASYSTREET.COM/OTVARC

WORLDWIDE DISTRIBUTION



Ray McCarty
Manager
K17TN

11705 S.W. Pacific Hwy.
Portland, OR 97223
(503) 598-0555, 1-800-854-6046
Fax (503) 684-0469

ANAHEIM CA • ATLANTA GA • BURBANK CA • DENVER CO
NEWCASTLE DE • OAKLAND CA • PHOENIX AZ • PORTLAND OR
SALEM NH • SAN DIEGO CA • SULLYVALE CA • WOODBRIDGE VA

FOR SALE

Larsen dual band mag mount
\$35.00

Yasesu FT2200 2m mobile rig
\$150.00

Al Berg 640-5456

OTVARC

Oregon Tualatin Valley ARC
PO Box 5132

Aloha, OR 97006-0132

Address Correction Requested



DATES TO REMEMBER

March 17 - St Patrick's Day

March 21 - Spring Begins

March 27 - Eugene Hamfair